

**Reed, Angel**

---

**From:** Harrigan, Sandra  
**Sent:** Thursday, January 15, 2009 7:55 AM  
**To:** Alfano.Barbara@epamail.epa.gov  
**Cc:** Reed, Angel  
**Subject:** TTEMI-05-003-0051 Kerr McGee Preliminary HRS Project Update  
**Attachments:** TTEMI-05-003-0051\_Kerr McGee **DVR-Data Package Status.pdf**; TTEMIO-05-003-0051\_Kerr McGee Project Update.pdf

Hi Barbara,

I apologize for being late with this submittal. I am not in the office right now. I am on my way to the dentist. I will be in the office around 10:00. I will call you as soon as I leave my appointment and I on my way to the office. I still need to provide the estimates on soil contamination and ground water plume. I need to confer with someone else, because I am getting too large of a number for the soils.

Sandra Harrigan| Project Manager  
Direct: 678.775.3088|Cell: 678.773.5428  
Fax: 678.775.3138  
[sandra.harrigan@ttemi.com](mailto:sandra.harrigan@ttemi.com)  
Tetra Tech EM Inc.  
1955 Evergreen Boulevard| Building 200, Suite 300  
Duluth, GA 30096| [www.tetrattech.com](http://www.tetrattech.com)



11021935

**SUMMARY OF DATA PACKAGE AND DATA VALIDATION REPORTS INFORMATION  
KERR MCGEE**

<b>SAMPLE DELIVERY GROUP (SDG)</b>	<b>APPENDIX H - ANALYTICAL RESULTS FILES</b>	<b>PACKAGE LEVEL</b>	<b>APPENDIX L - DATA PACKAGE VALIDATION REVIEWS</b>	<b>VALIDATION PERFORMED BY</b>	<b>APPARENT VALIDATION LEVEL</b>
KMGJ01	October 2000	Level I	Yes	IT/Shaw & ESAT	IT/Shaw = Level III; ESAT = Level IV
KMGJ02	October 2000	Level I	Yes	IT/Shaw & ESAT	IT/Shaw = Level III; ESAT = Level IV
KMGJ03	October 2000	Level I	Yes	IT/Shaw & ESAT	IT/Shaw = Level III; ESAT = Level IV
KMGJ04	November 2000	Level I	Yes	IT/Shaw & ESAT	IT/Shaw = Level III; ESAT = Level IV
KMGJ05	November 2000	Level I	Yes	IT/Shaw & ESAT	IT/Shaw = Level III; ESAT = Level IV
KMGJ06	December 2000	Level I	Yes*	IT/Shaw & ESAT	IT/Shaw = Level III; ESAT = Level IV
KMGJ07	December 2000	Level I	Yes	IT/Shaw & ESAT	IT/Shaw = Level III; ESAT = Level IV
KMGJ08	December 2000	Level I	Yes	IT/Shaw & ESAT	IT/Shaw = Level III; ESAT = Level IV
KMGJ09	February & March 2001	Level I	Yes	IT/Shaw & ESAT	IT/Shaw = Level III; ESAT = Level IV
KMGJ10	May 2002	Level I	Yes (no cover report - checklist only)	IT/Shaw & ESAT	IT/Shaw = Level III; ESAT = Level IV
KMGJ11	June 2002	Level I	Yes (no cover report - checklist only)	IT/Shaw & ESAT	IT/Shaw = Level III; ESAT = Level IV
KMGJ12	June 2002	Level I	Yes (no cover report - checklist only)	IT/Shaw	IT/Shaw = Level III
KMGJ13	June 2002	Level I	Yes (no cover report - checklist only)	IT/Shaw	IT/Shaw = Level III
KMGJ14	June 2002	Level I	Yes (no cover report - checklist only)	IT/Shaw	IT/Shaw = Level III
KMGJ15	June 2002	Level I	Yes (no cover report - checklist only)	IT/Shaw & ESAT	IT/Shaw = Level III; ESAT = Level IV
KMGJ16	<b>Not found</b>	<b>Not found</b>	Yes (no cover report - checklist only)	IT/Shaw	IT/Shaw = Level III
KMGJ17	July 2002	Level I	Yes (no cover report - checklist only)	IT/Shaw	IT/Shaw = Level III
KMGJ18	April 2003	Level I	Yes (no cover report - checklist only)	IT/Shaw	IT/Shaw = Level III
KMGJ19	June 2003	Level I	No	<b>Not found</b>	<b>Not found</b>
KMGJ34	September 2004	Level II	No	<b>Not found</b>	<b>Not found</b>
KMGJ35	September 2004	Level II	No	<b>Not found</b>	<b>Not found</b>
KMGJ36	September 2004	Level II	No	<b>Not found</b>	<b>Not found</b>
KMGJ37	September 2004	Level II	No	<b>Not found</b>	<b>Not found</b>
KMGJ38	September 2004	Level II	No	<b>Not found</b>	<b>Not found</b>
KMGJ39	October 2004	Level II	No	<b>Not found</b>	<b>Not found</b>



**SUMMARY OF DATA PACKAGE AND DATA VALIDATION REPORTS INFORMATION  
KERR MCGEE**

<b>SAMPLE DELIVERY GROUP (SDG)</b>	<b>APPENDIX H - ANALYTICAL RESULTS FILES</b>	<b>PACKAGE LEVEL</b>	<b>APPENDIX L - DATA PACKAGE VALIDATION REVIEWS</b>	<b>VALIDATION PERFORMED BY</b>	<b>APPARENT VALIDATION LEVEL</b>
KMGJ40	September 2004	Level II	No	Not found	Not found
KMGJ41	September 2004	Level II	No	Not found	Not found
KMGJ42	September 2004	Level II	No	Not found	Not found
KMGJ43	September 2004	Level II	No	Not found	Not found
KMGJ46	September 2004	Level II	No	Not found	Not found
KMGJ47	October 2004	Level II	No	Not found	Not found
KMGJ48	October 2004	Level II	No	Not found	Not found
KMGJ49	October 2004	Level II	No	Not found	Not found
KMGJ51	October 2004	Level II	No	Not found	Not found
KMGJ52	October 2004	Level II	No	Not found	Not found
KMGJ53	October 2004	Level II	No	Not found	Not found
KMGJ54	November 2004	Level II	No	Not found	Not found
KMGJ55	November 2004	Level II	No	Not found	Not found
KMGJ56	November 2004	Level II	No	Not found	Not found
KMGJ57	November 2004	Level II	No	Not found	Not found
KMGJ58	November 2004	Level II	No	Not found	Not found
KMGJ59	November 2004	Level II	No	Not found	Not found
KMGJ60	November 2004	Level II	No	Not found	Not found
KMGJ61	December 2004	Level II	No	Not found	Not found
KMGJ62	December 2004	Level II	No	Not found	Not found
KMGJ63	December 2004	Level II	No	Not found	Not found
J143	February 2005	Level II	No	Not found	Not found
J388	March 2005	Level II	No	Not found	Not found

\* = ESAT indicates that IT/Shaw did a validation of this report; however, it was not included in the RI Report we have.

**Notes:**

ESAT only performed validation on a random selection of ten percent of the samples.

KB Labs of Gainesville, Florida performed volatile organic compound and/pesticide analysis for direct push locations in September - October 2004. The data package received is Level II, and there is no indication that data validation was performed on this data set. It should be noted that the data file received by Tetra Tech ends on page 49 of 65.

## Data Package Levels

A Level IV data package typically contains the following items:

- **Cover page**
- **Table of contents**
- **Case narrative, including brief descriptions of the analytical methods used and a summary of any laboratory or analytical non-conformances**
- **Field/laboratory sample designation cross-reference table**
- **Sample container certificates of cleanliness (as provided by the manufacturer)**
- **Data qualifier, abbreviation, and acronym definition page**
- **Sample results summary sheets, including tentatively identified compounds for volatile organic compound and semivolatile organic compound analyses**
- **QC sample summary forms, for all associated preparation and analytical batches, which present all of the results and QC summary data that are provided on CLP or CLP-like forms for organic and inorganic analyses. These forms should include results for the following:**
  - Initial and continuing calibrations
  - Inorganic initial and continuing calibration verifications
  - Pesticide calibration verifications
  - **Laboratory control samples [LCS] and LCS duplicates**
  - **Blanks (method, initial, continuing, and preparation)**
  - **MS/MSDs**
  - **Post-digestion spike samples and matrix duplicate samples**
  - Instrument performance check (for example, tune) results
  - Internal standard area and retention time results
  - Internal standard relative intensity results (for inductively coupled plasma [ICP] – mass spectrometry analysis)
  - **System monitoring compound & surrogate results**
  - Pesticide cleanup checks
  - Pesticide resolution checks
  - **ICP interference check sample results**
  - **ICP serial dilution results**
  - ICP-atomic emission spectrometry inter-element correction factors
  - ICP linear ranges
  - Results of instrument and method detection limit studies
  - Analyte (pesticide) identification summaries
- **Signed original chain-of-custody (COC) forms**
- **Laboratory sample receipt forms**
- **Sample preparation (extraction, digestion, etc.) logs**
- **Instrument and analysis run logs**
- **Percent moisture/percent solids determination logs**
- Raw data (for example, chromatograms, quantitation reports, and mass spectra) for all samples, QC samples, and calibrations.

A Level III data package contains all of the above except the raw data (last bullet). A Level II data package contains the bolded items above. A Level I data package is usually limited to the cover page, narrative, chain of custody forms, and sample data sheets.

A full validation (Level IV) involves a 100 percent check against applicable acceptance criteria of all quality control (QC) parameter data, including the parameters listed above. In addition, all data that pertain to analyte identification, such as chromatograms and mass spectra, are checked completely (100 percent) to evaluate the accuracy of analyte identification. This effort involves an in-depth quantitative check of a fraction of the data; this check involved recalculation of QC results (such as percent recoveries [%R] and relative percent difference [RPD] values) and target analyte results from the raw data. Results are recalculated at a frequency of 10 percent for the data that had been transcribed and generated by hand. Results for data calculated by software were recalculated at varying frequencies and to the extent necessary to confirm the adequacy of the software. If errors or discrepancies are encountered when any data were recalculated and checked, the extent of the data check was expanded, as necessary, to identify the full extent of the problem.

A validation of the Level II and Level III includes a 100 percent check against applicable acceptance criteria for all summaries forms submitted as indicated above.